

BOBROV, Ye.G., inzh.; GLUKH, Ye.M., inzh.; KOVTUN, N.F., inzh.;
FLEYSHMAN, L.S., inzh

Utilization of the power potentials of traction substations.
Zhel.dor.transp. 43 no.6:22-27 Je '61.

(MIRA 14:7)

1. Glavnnyy konstruktor po rytutnym vypryamitelyam zavoda
"Uralelektroapparat" (for Glukh). 2. Nachal'nik konstruktorskogo
byuro zavoda "Uralelektroapparat" (for Fleyshman).
(Electric railroads--Substations)

GLUKH, Ye.M., kand.tekhn.nauk; ZEMLYANOY, Yu.M., inzh.;
ETTINGER, Ye.L., kand.tekhn.nauk

Ionic exciters in the hydrogenerators of the Bratsk
Hydroelectric Power Station. Vest. elektroprom. 33
no.10:15-22 0 '62. (MERA 15:9)
(Bratsk hydroelectric power station)
(Turbogenerators)

ETTINGER, Ye.L., kand.tekhn.nauk; GLUKH, Ye.M., kand.tekhn.nauk;
GOL'DIN, R.G., inzh.; TITOV, V.V., kand.tekhn.nauk; NEYMAN, Z.B.,
inzh.

Concerning L.V.Rosman's article. Vest. elektroprom. 34 no.1:
62-64 Ja '63. (MIRA 16:1)
(Electric generators) (Rosman, L.V.)

BOGDANOV, Valentin Nikolayevich; FOGEL', A.A. kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, G.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V., inzhener, redaktor; VASIL'YEVA, V.P., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Use of through induction heating in industry] Primenenie skvosnogo induktsionnogo nagрева v promyshlennosti. Izd.2-oe, ispr. i dop. Pod red. A.A.Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 78 p. (Bibliotekha vysokochastotnika-termista, no.12)

(MLRA 10:6)

(Induction heating)
(Metals--Heat treatment)

200-11-12

AUTHOR: Rustom, S.L.

129-4-12/12

TITLE: All-Union Conference on industrial use of high frequency currents held in Leningrad. (Vsesoyuznoye soveshchaniye po promyshlennomu priljeneniyu t.v.ch. v g. Leningrade).

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No.4, pp. 61-64 (USSR).

ABSTRACT: The conference held in November, 1957 was convened by the Leningrad Scientific and Technical Society of the Engineering and Power Generation Industry (Leningradskoye Nauchno-Tekhnicheskoye Obshchestvo Mashinostroitel'noy i Energeticheskoy Promyshlennosti). The task of the conference was to report on advanced experience, to discuss achievements in this field outside the Soviet Union and to evolve recommendations for expanding the use of high frequency in industry and introduction of progressive technology and also evolving organisational measures for improving the quality of high frequency equipment and apparatus. The conference included sections for induction heating technology, metals technology, non-conducting materials and equipment.

Candidate of Technical Sciences, N.A. Spitsyn (NII TVCh imeni V. P. Vologdin) read the paper "New developments in the field of industrial application of high frequency

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currents". In this paper he outlined the most important trends in the use of high frequency heating between 1955 and 1957 dealing with surface hardening of components with complicated configurations; high speed gas carburisation using induction heating; heating right through of blanks for forging, stamping and rolling; development of apparatus for controlling heat treatment processes and automation and mechanisation in large batch and mass production. During the last three years the following technological processes have been developed which are based on induction heating:

1. Two-frequency "hardening" of the surface of toothed gears with average moduli. First, heating is effected with a frequency of 1000-2500 c.p.s. during which the heat is generated mainly at the bottom of the tooth gap and, following that, radio frequency is fed to the inductor for a duration of 0.5 to 0.8 sec for heating the tips of the teeth. Subsequent quenching permits obtaining a hardened layer which reproduces the shape of the teeth.

2. Gas case hardening of toothed gears using induction heating ensures a sharp increase of the speed of the

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chemical-heat treatment and is used successfully in the automobile industry.

3. Hardening of the drilling bits for use in the oil industry.

4. "Bright" annealing of steel strip.

5. Two-frequency heating of steel blanks for heating by applying pressure, particularly for rolling.

6. Heating and hardening of leaf springs on automatic machines.

7. High speed tempering of hardened components using high frequency heating etc. For automating technological processes, the following are at present manufactured:

An automatic machine for heating and hardening of leaf springs; manipulator for horizontal forging machines; automatic machines for hardening of small components.

Of the new apparatus used in induction heating, the author mentioned a stabiliser of the temperature of components being heated, a photo-electric pyrometer with a direct reading off of the temperature, relay for dosing the energy, etc. Of particular interest were the data he gave on

Card 3/14 the two-frequency heating of gears. The entire process

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takes only a few seconds and can be used in mass production for heat treatment of gears with average moduli. Heating of blanks which are to be shaped by applying pressure is also effected by two-frequency induction heating using 50 c.p.s. current for heating to 700-750°C followed by heating with high frequencies to 1100-1150°C. The two-frequency induction heating reduces the consumption of electricity in the case of heating right through of blanks. For tempering and annealing of weld joints, induction heating with 50 c.p.s. and with higher frequencies is used. The paper of M. G. Lozinskiy, Doctor of Technical Sciences, Institute of Engineering Technology, Ac.Sc. USSR (Institut Mashinovedeniya AN SSSR) deals with the problems of strength of surface hardened components and the features of high frequency heating. The deformation detected by the author in engineering magnet steels "45" and "40X" forms in the surface layer as a result of magnetostriction caused by the a.c. electromagnetic field of the inductor. On a smooth surface of blanks consisting of magnetic steels which were subjected to repeated cycles of heating and cooling, "hounds" and

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"valleys" form at spacings equal to the half-wave of the supersonic oscillations generated by the high frequency. In non-magnetic steels no such phenomenon was observed. It was also observed that with increasing number of cycles, heating-cooling, the diameter of the cylindrical specimens in the heating zone increases, whilst the height of the specimens decreases. Furthermore, the author reported on the method of G. V. Ushik which enables increasing the static strength up to 300%; this is achieved by using h.f. heating of a thin layer in the zone of stress concentrations at the surface of steel components. Thus, for instance, cylindrical specimens made of hardened 40X steels with a stress concentrator in the form of a notch will be 2.5 times stronger if the notch zone is tempered by using h.f. heating. M. G. Lozinsky considers that use of the method of strengthening by applying h.f. tempering of the stress concentration zones will permit evolving specifications which would justify more rational designs than those used hitherto.

Card 5/14 K. Z. Shepelyakovskiy (ZIL) read the paper "On reducing the hardenability as a means of achieving contour (surface)"

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hardening of toothed gears of average moduli". For this purpose a steel with low hardenability, 30X^GT, was used. Gears made of this steel, of 180 mm dia. with a modulus of 4.2, were heated by means of an 8000 c.p.s. current of 100 kW capacity for a duration of 24 secs. The heating was effected in a ring-shaped inductor after which the gears were moved into a ring-shaped shower with a fixed direction of the holes. The teeth and the rims of the gears were subjected to hardening. The strength of the hardened teeth was investigated by loading until failure. In the case of gears made of the steel 30X^GT (after carburisation and hardening) this load was 15.6 tons, for the steel 30X^GT the load was 16 tons. In the case of hardening of gears made of the steel 30X^GT, a minimum deformation occurs, the fluctuations along the pitch circle after hardening amounted to 0.01-0.02 mm. In some cases the contact strength should be increased by increasing the carbon content to 0.6-0.7%.

I. L. Glukhanov, V. N. Bogdanov, Ye. D. Makarova,
H.F. Scientific Research Institute imeni V.P. Vologdin

Card 6/14 (NII TVCh imeni V. P. Vologdina) presented a paper on

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surface hardening of gears by induction heating with two frequencies. The method ensures heating along the contour of gears with moduli of 3.5 to 5. During heating with a lower frequency (1000 to 2000 c.p.s.), the rest of the tooth gap is heated inductively, whilst at radio frequency (300 000 c.p.s.) the tip of the tooth is heated. The same inductor is used for both frequencies. The heating with the lower frequency lasts 2.5 to 4 sec; thereby, the specific power consumption is 1.5 to 1.7 kW/cm². Heating with the higher frequency is effected for 0.5 to 0.7 sec using a specific power of 1.1 to 1.2 kW/cm². The 1000 c.p.s. current is generated by a 500 kW rotary generator, whilst the 300 kc/sec current is generated with an oscillator circuit of 400 kW rating. During hardening of gears made of steel "45" cracks occur and, therefore, the carbon content was reduced and alloy steels 36Г2C, 35ГC etc. are being used. For fracturing a tool of a surface hardened gear a force of 9.5 to 17 tons is required, whilst the force required for fracturing case hardened gears after hardening, made of the steel 18ХГТ, Card 7/14 did not exceed 10 tons per tooth. Gears produced by using

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two-frequency hardening work took three times faster than gears produced according to the old technology. Therefore, in the further tests the serial 65P, 70X7P, 40XH and 40XHMA were used.

The paper of N. M. Rodin, Ural Branch of the A.S.S.R. USSR (Ural'skiy Filial A.S.S.R) was devoted to the method of induction heating of steel strip. The novel feature consists in the fact that the electro-magnetic field produced by an alternating current is directed perpendicular to its surface and not in the longitudinal direction of the strip. This enables using economical source of current of elevated frequency, namely, rotary generators. The required temperature distribution along the width of the strip is ensured by an appropriate configuration of the magnetic path and by an air gap between the poles. This method can be used for annealing cold rolled strip, for heating and for preheating of strip during rolling, pickling, deposition of coatings, etc.

V. M. Bogdanov and V. A. Peysikovitch reported on the practical application of the above method for annealing thin strip in the Leningrad Steel Rolling Mill (Leningradskiy

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Staleprotkniy Zavod). The optimum frequency depends on the thickness and the width of the strip. For a thickness of 0.2 to 0.6 mm and a width of 100 mm it is recommended to use a current of 8000 c.p.s.; for strip of 200 mm a current of 2500 c.p.s. and for strip of 400 mm a current of 1000 c.p.s. On heating strip to 700-900°C, the uniformity of the temperature along the breadth of the strip is $\pm 25^{\circ}\text{C}$. For heating, a two-turn inductor was used, whereby the conductors of the current and of the magnetic flux were water cooled. This method was applied in the case of bright annealing of cold rolled strip. For a speed of movement of the strip of 25 m/min the required power was 200 kW (for a frequency of 2500 c.p.s.). The productivity of the equipment equalled 1 ton/hr. The specific power consumption during induction heating is 180-190 kWh/ton. Compared with annealing in chamber furnaces, this method has a number of advantages since thereby the productivity per m² of production space is increased two to threefold, the annealing time is reduced by several hundred times, uniform mechanical properties are ensured along the entire length of the

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strip coil and welding together of the strip during annealing is prevented. The specific consumption of electricity is higher for induction heating than for electrical furnaces.

V. N. Gridnev, Doctor of Technical Sciences, **Kiyev** Polytechnical Institute (**Kiyevskiy Politekhnicheskiy Institut**) dealt with the influence of the speed of heating on the structure and the properties of steel. Apparatus was built for the investigations which enabled simultaneous recording of several physical parameters so that the following could be oscillographically recorded: temperature, change in the length of the specimen and in its electric resistance and also current intensity in the inductor. The recording was effected with a speed of 50 to 10 000°C/sec and the dilatometric curves were recorded with a speed of 60 000°C/sec. The following binary alloys were investigated - Fe-Cr (up to 3%); Fe-Si (up to 3%); Fe-Ti; Fe-W; the C content was about 0.02%. Steels containing 0.1; 0.45; 0.54; 0.77 and 1.12% C were also investigated. The author has established that during heating of annealed carbon-free alloys, the

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transformation to porosity does not depend on the speed of heating and the magnitude of the volume effects depends on the composition of the alloy and the preceding heat treatment. When heating annealed iron-carbon alloys, the transformation temperature is determined by the speed of heating and by the initial structure. On heating hardened low alloy carbon-free alloys, the transformation temperature compared to that in the alloys in the annealed state does not change at all in some cases (Fe-Si; Fe-Ti), whilst in other cases it decreases by 30 to 40°C (Fe-Cr and Fe-W). On heating hardened steels, the dilatometric recordings show clearly the volume changes caused by the martensite decomposition and by the phase transformation; the decomposition cannot be suppressed not even at heating speeds of 60 000°C/sec. At high heating speeds of hardened steels, the phase transformation takes place in the range of 700°C, i.e. at lower temperatures than the transformation during slow heating. Investigations of the influence of the heating speed on the structure and properties of hardened, carbon and alloy steels in

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heating speeds a favourable combination can be obtained of the strength and ductility and also an increased resistance to wear which is of practical interest. In their paper I. N. Kilin, Doctor of Technical Sciences, and Yu. A. Bashnin, Moscow Institute of Steel (Moskovskiy Institut Stali) expressed the view that the higher the heating speed the larger will be the temperature range in which phase transformations will take place. Experimental data show that pearlite-austenite transformations proceed in the range of higher temperatures. In the case of high frequency hardening, higher temperatures are required than in the case of heating in an ordinary furnace. This is attributed to the fact that the phase transformations proceed with a higher speed due to the more rapid rise in the temperature and due to the sharp acceleration of the dissociation of carbides and the diffusion of carbon in the ferrite. The authors showed that it is justified to introduce a new thermal parameter, namely, the speed of induction heating in the range of phase transformation. This would enable

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hardening regimes which would conserve the character of generally valid relations under conditions which are reproduceable in normal production.

V. P. Pleshachkova (TsNIITMASI) reported in creating paper on the deformation of surface hardened steel. H.F. surface hardening permits reducing the deformation of the steel. The author investigated the influence on the deformation of the following factors: heating temperature, cooling speed, depth of the hardened layer, structure of the starting material and also of the temperature and time of heating in the case of low temperature tempering. The results have shown that in the case of h.f. surface hardening of ring specimens with a wall height to diameter ratios (1:4; 1:7) produced from various steels, the deformation manifests itself in a decrease of the outside diameter and an increase in the height and in the inner diameter. An increase in the temperature leads to an increase in the deformation along the outside and inside diameters and manifests itself less on the height of the rings. The deformation of rings made of alloy steels

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equal conditions of heating and cooling. Cooling in a 30 to 35% solution of glycerine and a 5% solution of potassium permanganate brings about a reduction in the deformation and in the crack formation, particularly in the case of alloy steels (40X, 40XH). Tempering at 140 to 200°C reduces the dimensions: as compared to the hardened state and thereby the changes in the dimensions of the height and the internal diameter are compensated but the changes of the external diameter are amplified. Increase of the tempering temperature brings about an increase of the deformation.

Representatives from Roumania and East Germany participated in the Conference. The German delegate, E. Trippmacher, reported on the designs of compact h.f. transformers with built-in magnetic paths produced in East Germany.

NOTE: This is a complete translation and not an abstract.

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GLUKHAREV, A.G., mayor meditsinskoy sluzhby

Treatment of dry callusities by an alcohol-novocaine block.
Voen.-med. zhur. no. 6:81-82 Je '60. (NIRA 13:7)
(CALLOSITIES)

GLUKHANOV, N.P.; FOGEL', A.A., kandidat tekhnicheskikh nauk; redaktor;
VASIL'YEV, A.S., kandidat tekhnicheskikh nauk; retsensent; SO-
KOLOVA, L.V., tekhnicheskiy redaktor.

[Physical principles of high-frequency heating] Fizicheskie osno-
vy vysokochastotnogo nagreva. Pod red. A.A. Fogelia. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954.
54 p. (Biblioteka vysokochastotnika-termista, no.2) (MLRA 7:11)
(Induction heating)

GLUKHANOV, N.P.

Electromagnetic processes in a ferromagnetic medium during inductive heating. [Izd.] LONITOMASH no.33:12-25 '54. (MLRA 8:2)
(Induction heating)(Ferromagnetism)

VISHNEVSKIY, Nikolay Yevgen'yevich; GLUKHANOV, Nikolay Parmenovich;
KOVALEV, Ivan Sidorovich; STOLYAROV, V.I., Postdelenie; MIRKIN, .
G.I., kandidat tekhnicheskikh nauk, redaktor; CHUMNOUSOV, N.P.,
inzhener, redaktor; GOFMAN, Ye.K., redaktor izdatel'stva;
SOKOLOVA, L.V., tekhnicheskiy redaktor

[High pressure apparatus with hermetically sealed electric motors]
Apparatura vysokogo davleniya s ekranirovannym elektrosvigatelem.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956.
178 p. (MIRA 9:8)

(Electric motors) (Machinery industry)

YEVANGUL'VA, Yevgeniya Pavlovna; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, M.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; MIKHAYLOV-MIKHEYEV, P.B., doktor tekhnicheskikh nauk, retsensent; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Quality control of surface hardening] Kontrol' kachestva po-verkhnostnoi zakalki, Izd. 2-ee, ispr. i dop. Pod.red. A.A. Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ny, 1957. 33 p. (Bibliotekha vysokochastotnika-termista, no5) (MLRA 10:6)

(Metals--Hardening) (Quality control)

YSKIN, Solomon Yefimovich; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHAT'NOV, M.P., kandidat tekhnicheskikh nauk, redaktor; BAMYMER, A.B., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskiy redaktor

[Hardening machines] Zakalochnye stanki. Izd. 2-oe, ispr. i dop. Pod red. A.A.Fogelia. Moskva, Gos.nauchno-tekhn. izd-vo mashino-stroit. lit-ry, 1957. 46 p. (Bibliotekha vysokochastotnika-termista, no.11)

(Induction heating) (Metals--Hardening)

ZHEZHERIN, Rostislav Petrovich; SPITSYN, Mikhail Aleksandrovich, kandidat tehnicheskikh nauk; FOGEL', A.A., kandidat tehnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tehnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tehnicheskikh nauk, redaktor; BANUNER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tehnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Power generators for high-frequency heating] Mashinnye gel'spratory dlia vysokochastotnogo nagрева, Izd.2-oe, ispr. 1 dop. Pod red. A.A. Fogelia, Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 49 p. (Bibliotekha vysokochastotnika-termista, no.8)

(MIRA 10:6)

(Induction heating) (Electric generators)

Glukhanov, N.P.

DEMICHÉV, Aleksey Dmitriyevich; SHASHKIN, Semen Vasil'yevich; DONSKOY, A.V.,
prof., doktor tekhn.nauk, rezaenzent; FOGEL', A.A., kand.tekhn.nauk,
red.; GLUKHANOV, N.P., red.; GOFMAN, Ye.K., red.izd-va; SPERANSKAYA,
O.V., tekhn.red.

[High frequency hardening] Vysokochastotnaja zakalka. Izd. 2-e,
ispr. i dop. Pod red. A.A.Fogelia. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1957. 52 p. (Bibliotekha vysoko-
chastotnika-termista, no.3) (MIRA 11:2)
(Metals--Hardening) (Induction heating)

SHEKALOV, Aleksandr Alekseyevich; SHTREYS, Yakov Iosifovich; BLINOV, Boris Vladimirovich; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; SULIKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BANUMER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; SYCHEVA, O.V., tekhnicheskiy redaktor

[Smelting in small coreless induction furnaces] Pлавка в малих бесардеиниковых индукционных печах. Изд. 2-ое, испр. и доп. Под ред. А.А.Фогеля. Москва, Гос. научно-техн.изд-во машиностроит.лит-ры, 1957. 53 п. (Библиотека высокочастотника-термиста, №.14) (MIRA 10:7)

(Electric furnaces)

SLUKHOTSKIY, Aleksandr Yevgen'yevich, kandidat tekhnicheskikh nauk; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BANUNER, A.B., inzhener, redaktor; VASIL'YEVA, V.I., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, redaktor; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Inductors used in steel hardening] Zakalochnye induktory. Izd.2-ee, ispr. i dop. Pod. red.A.A.Fogelia. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1957. 54 p. (Bibliotekha vysokochastotnika-termista, no.6) (MIRA 10:6)

(Induction heating) (Steel--Hardening)

SUDAKOV, P.M.; DONSKOY, A.V., prof., doktor tekhn.nauk, retsenzent; FOGEL',
A.A., kand.tekhn.nauk, red.; SPITSYN, M.A., kand.tekhn.nauk, red.;
SLUKHOTSKIY, A.Ya., kand.tekhn.nauk, red.; GLUKHANOV, N.P., kand.
tekhn.nauk, red. BANUNER, A.V., inzh., red.; SPERANSKAYA, O.V.,
tekhn.red.

[Instruments and measuring in high-frequency heating] Pribory i
izmereniia pri vysokochastotnom nagреве. Pod red. A.A. Fogelia.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957.
54 p. (Bibliotekha vysokochastotnika-termista, no.16) (MIRA 11:2)
(Electric heating--Measurement)
(Electric meters)

SHAMOV, Aleksandr Nikolayevich; FOGEL', A.A. kandidat tekhnicheskikh nauk, redakter; SPITSYN, M.S., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BANUMER, A.V., inzhener, redakter; SIMONOVSKIY, N.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Current supply of high-frequency heating installations by power generators] Pitanie vysokochastotnykh nagrevatel'nykh ustroistv ot mashinnykh generatorov, Izd.2-oe, ispr. i dop. Pod red. A.A. Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 55 p. (Bibliotekha vysokochastotnika-termista, no.10)
(MIRA 10:6)

(Induction heating)

GLUKHANOV NIKOLAY PARMENOVICH

Glukhanov, Nikolay Parfenovich

Fizicheskiye osnovy vysokochastotnogo nagreva (Physical Principles of High-frequency Heating) 2nd ed., rev. and enl. Moscow, Mashgiz, 1957, 58 p. (Bibliotekha vysokochastotnika-termista, vyp. 2) 10,000 copies printed.

Ed.:

Fogel', A.A., Candidate of Tech. Sciences; Reviewer: Donskoy, A.V., Dr. of Tech. Sciences, Prof.; Series Editorial board: Fogel', A.A. (Chairman); Spitsyn, M.A., Candidate of Tech. Sciences; Slukhotskiy, A.Ye., Candidate of Tech. Sciences; Glukhanov, N.P., Candidate of Tech. Sciences; Bamuner, A.V., Engr; Ed. of the issue: Slukhotskiy, A.Ye. Chief Ed. of the Leningrad Division of Mashgiz: Bol'shakov, S.A., Engr; Ed. of Publishing House: Simonovskiy, N.Z.; Tech. Ed.: Sycheva, O.V. Corrector: Khoroshkevich, V.M.

Card 1/4

Physical Principles of High-frequency Heating (Cont.)

PURPOSE: The brochures published in the series "Bibliotekha vysokochastotnika-termista" are intended for wide circles of industrial workers interested in high-frequency heating technique.

COVERAGE: The brochure presents in an easily accessible form the physical principles of high-frequency heating of metals and dielectrics. An understanding of the theory of electric and magnetic phenomena, of the theory of electromagnetic fields and of heating with an electromagnetic field is considered necessary in order to be able to work in the field covered by the brochures of the series. A complete list of the brochures included in the series is published at the end of each issue. There are 5 Soviet references.

Card 2/4

Physical Principles of High-frequency Heating (Cont.)

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Physical Principles of High-frequency Heating (Cont.)

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AVAILABLE: Library of Congress

Card 4/4

GLUKHANOV N. P.

BRITSYN, N.L.; DONSKOY, A.V., prof., doktor tekhn.nauk, rezensent; FOGL',
A.A., kand.tekhn.nauk, red.; SPITSYN, M.A., kand.tekhn.nauk, red.;
SLUKHOTSKIY, A.Ye., kand.tekhn.nauk, red.; GLUKHANOV, N.P., kand.
tekhn.nauk, red.; BAHUMER, A.V., inzh., red.; GOTMAN, Ye.K., red.
izd-va; SPARANSKAYA, O.V., tekhn.red.

[High-frequency electric field heat treatment] Nagrev v elektriches-
kom pole vysokoi chastoty. Izd. 2-oe, ispr. i dop. Pod red. A.A.
Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry,
1957. 62 p. (Biblioteka vysokochastotnika-termista, no.15)
(Dielectric) (MIRA 11:2)
(Lumber--Drying)

GLUKHANOV, N. I.

VOLOGDIN, Vladislav Valentinovich; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, re-daktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BANUMER, A.V. ~~enzhener~~, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; KHORO-SHAYLOV, V.G., kandidat tekhnicheskikh nauk, rezensent; SYCHEVA, O.V. tekhnicheskiy redaktor.

[Rедакция. сълдинг]. Paika pri industriyonom magneve. Izd.2-ee, ispr. i dop. Ped.red. A. A. Fogelia. Moskva. Gos. nauchno-tehn. isd-vo mashinostroit. lit-ry, 1957. 66 p. (MLRA 10:6)
(Induction heating)(Solder and soldering)

GLAV/10/1

SLUSHOV Vsevolod Valentinovich; SLUSHOV KIV. Aleksandr Ivanovich; YEVIN; JOMKOV, A.V., profesor, doktor tehnicheskikh nauk, nauchnyi redaktor; POJEL', A.A., kandidat tehnicheskikh nauk, redaktor; STYK, I.A., kandidat tehnicheskikh nauk, redaktor; SLUSHOV V.I., kandidat tehnicheskikh nauk, redaktor; SAMUNOV, A.V., inzhener, nauchnyi redaktor; VASIL'YEV, V.P., redaktor Izdatel'stva; SPERAKOV, V.V., nauchnyi redaktor

[Transformers for high-frequency heating] Transf. na russ. i z. vysokochastotnaya tanya. Pod red. A.A. Pojela. M., 1957. 176 s. Biblioteka vysokochastotnika-tehnika, no.73 (MZhA 10:11)
(Induction heating) (Electric transistors)

GLUKHANOV, N.P.; KOVALEVSKAYA, Ya.P.; KRYLOV, K.I., prof.; MURAV'YEVA, G.Ya.;
RUDAKOV, V.N.; SMIRNOV, P.S., tekhn.red.

[Laboratory work on electromagnetic fields] Laboratornye raboty
po elektromagnitnomu poliu. Pod obshchei red. K.I.Krylova. Lenin-
grad, Leningr. elektrotekhnicheskii in-t im. V.I.Ul'ianova (Lenina),
(MIRA 11:?)
1957. 246 p.

1. Zaveduyushchiy kafedroy "Teorii elektrichestva, magnetizma i
stroyeniya materii" (for Krylov)
(Electromagnetic theory)

S/112/50/000/013 '033 '007
A002/A001

Translation from Referativnyy zhurnal, Elektrotehnika, 1959, No 13, p 125,
27099

AUTHORS Bogdanov, V. N., Glukharov, N. P., Makarova, Ye. D.

TITLE: Surface Hardening of Gears With Induction Heating by Currents of
Two Frequencies 11

PERIODICAL: V sb.: Prom. primeneniye tokov vysokoy chastoty. Riga, 1957,
pp. 7-18

TEXT: The authors enumerate methods of induction hardening of gears and
indicate peculiarities of their heating. A gear model is used for discussing
the physics of heating "along the outline" (po obvodu). The authors give
analytical dependences of the optimum hardening frequency on the module and ✓
formulae for determining heating time and required power. They describe a
two-frequency heating circuit operating on frequencies of 1,000 and 25,000 cps,
a design of a single-loop inductor for these purposes, a circuit of an electric
device, and the operating conditions for processing gears of module 4-25. The

Card 1/2

3/112/69/006/013/033/061
A002/A001

Surface Hardening of Gears With Induction Heating by Currents of Two Frequencies

control of the heating process has been automated. The current sources are a 350-kw rotary converter and a tube generator with four 100-kw tubes. The design of an improved inductor and the circuit for its connection are given, which make it possible to carry out a simultaneous heating by currents of two frequencies. The inductor consists of four semi-rings. Each of them is a bridge arm into whose diagonal a feed source is switched. The inductor will harden 2 gears simultaneously. The control of the heating has been automated. It is possible to regulate the moments of switching on or off the h-f and l-f currents. There are 6 references

L. A. 5

Translator's note: This is the full translation of the original Russian abstract

Card 2/2

8(4)

SOV/112-59-3-5237

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3,
pp 132-133 (USSR)

AUTHOR: Glukhanov, N. P., and Bigdanov, V. N.

TITLE: High-Frequency Heating for Metal Welding
(Svarka metallov pri vysokochastotnom nagreve)

PERIODICAL: V sb.: Prom. primeneriye tokov vysokoy chastoty. Riga, 1957,
pp 39-46

ABSTRACT: Use of high-frequency heating for welding of metals is examined, as well as the techniques and methods for butt welding of sheets, strips, plates, etc.; direct passing of high-frequency currents through the parts being welded with utilization of the proximity effect is considered, as well as the induction heating methods for longitudinal and butt pipe welding. The following examples of practical application of high-frequency heating for metal welding are described: butt welding of pipe ends using a split-ring inductor; welded-pipe

Card 1/2

SOV/112-59-3-5237

High-Frequency Heating for Metal Welding

production from a strip by means of a plane inductor acting on the continuously moving pipe; longitudinal welding of large-diameter pipes in which the current passes through an intermediate bus placed between the pipe edges and returns through the pipe edges. Technological welding parameters and pictures of welding outfits are presented.

L. Ya. L.

Card 2/2

BOGDANOV, V.N., laureat Stalinskoy premii; GLUKHANOV, N.P.; MAKAROVA, Ye.D.

Hardening gears by two-frequency currents. Avt. i trakt. prom. no.5:
38-41 My. '57. (MIRA 10:6)

1. Nauchno-issledovatel'skiy institut tokov vysokoy chastoty.
(Gearing) (Metals--Hardening) (Induction heating)

2d(1) PHASE I BOOK EXPLOITATION SCV/214c

Sovetskii po kompleksnoy mehanizatsii i avtomatizatsii tekhnologicheskikh protsessov. 2nd, 1970.

Avtomatizatsiya mashinostroitel'nykh protsessov / (red. Goryachiy, A. S. i dr.). In: Goryachiy, A. S. i dr. (red.). Conference on Machine-Building Processes, Proceedings of the Conference on Over-All Mechanization and Automation of Technological Processes, Vol. 1. Hot Metal-Forming. Moscow, 1970. 374 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Rossiyskaya po tekhnologii mashinostroeniya.

Rasp.: Ed.: V. I. Bileshkin. Academician: Compiler: V. M. Rukatov. Ed.: V. P. Kuz'min. M.: of Publishing House V. A. Kosov. Tech. Ed.: I. P. Kaz'min.

PURPOSE: The book is intended for mechanical engineers and metallurgists.

COVERAGE: The transactions of the second Conference on the Over-All Mechanization and Automation of Industrial Processes, September 23-29, 1970, have been published in three volumes. This book, Vol. 1, contains articles under the general title, "Hot Working of Metals". The investigations described in the book were conducted by the Sections for "Hot-Working of Metals" and "Working of Metals" of the Scientific-Research Institute for Metallurgy under the direction of the Collective of Scientists: casting, metal-forming, A. N. Abashev, D. V. Ivanov and G. N. Orl'ov; forming, A. A. Sosulin, A. D. Tsvetkov and V. V. Pugachev; welding, V. A. Maksimov, B. I. Protopopov and V. N. Matrosov. There are 132 references: 141 Soviet, 34 English, 6 German, and 1 French.

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card 6/3

GLUKHANOV, N.P., kand. tekhn. nauk; BOGDANOV, V.N., inzh.; KULZHINSKIY, V.L.,
inzh..

Longitudinal seam welding of large diameter pipes with high
frequency resistance heating. Svar. proizv. no.2:6-8 P '59.
(MIRA 12:1)

1. Nauchno-issledovatel'skiy institut tokov vysokoy chastoty.
(Pipe, Steel--Welding)
(Electric welding)
(Induction heating)

PHASE I TECH. EXPLOITATION

SOV/4787

Vichnevskiy, Nikolay Yevgen'yevich, Nikolay Parfenovich Grinberg, and
Ivan Sidorovich Kovalev

Aparatura vysokogo davleniya s germeticheskim privodom (High-Pressure Ap-
paratus With an Airtight Drive) 2nd ed., rev. and enl. Moscow, Mashgiz,
1960. 246 p. Errata slip inserted. 5,000 copies printed

Reviewers. G. N. Dobrokhotov, Candidate of Technical Sciences, and
I. M. Stolyarov, Engineer; Managing Ed. for Literature on the Design and
Operation of Machines (Leningrad Department, Mashgiz): F. I. Fetisov,
Engineer; Ed. of Publishing House: I. A. Borodulina, Tech. Ed.:
A. I. Kontorovich.

PURPOSE: This book is intended for engineers and technicians in machine and
instrument construction, and in establishments of the chemical and petro-
leum industries who are engaged in the construction and use of high-pres-
sure apparatus.

Card 1/7

High-Pressure Apparatus With an Airtight Drive

SOV/4787

COVERAGE: The authors discuss new types of airtight apparatus intended for operation under high and superhigh pressures and in a corrosive medium. Experimental data on the hydraulic condition of reaction apparatus are presented. Information is included on airtight pumps and gas blowers, used in the chemical industry, with electromagnetic drive by a built-in shielded electric motor. Chs. I, II, VI, VII, VIII, IX, and X were written by N. Ye. Vishnevskiy, Candidate of Chemical Sciences. Ch. III was written by I. S. Kovalevskiy, Candidate of Technical Sciences. Ch. IV was written jointly by I. S. Kovalevskiy and N. P. Glukhanyov, Candidates of Technical Sciences. Ch. V was written by N. P. Glukhanyov, Candidate of Technical Sciences. No personalities are mentioned. There are 63 references: 52 Soviet (including 2 translations), 10 English, and 1 German.

TABLE OF CONTENTS:

Foreword	3
Ch. I. Some Special Features of the Operation of High-Pressure Apparatus	
Card 2/7	

NIITVCH - RUSSIAN STATE TELEVISION

Information about processes in plates and filters at high frequencies. (using NIITVCH no. 125-23 '60.)

Information about filter center. (Ibid. 135 '64.)

U.S. 1977

S/137/62/006/00/113
A052/A1C1

AUTHOR: Glukhanov, M. P.

TITLE: "The selection of current frequency when welding large-diameter pipes"

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no.2, 1962, 52, abstract PE-1
(v sb. "Prom. primeneniye tokov vysokoy chastoty v elektrotermii",
Moscow-Leningrad, Mashgiz, 1961, 58-73)

TEXT. Based on the studies carried out on the selection of current frequency when welding large-diameter pipes the following conclusions are drawn. 1. The main factors determining the selection of frequency are the irregularity of the energy distribution over the wall thickness of a pipe ingot and the degree of energy concentration in the heated metal volume compared with the total energy transferred to the pipe ingot. These two factors are antagonistic. 2. Based on point 1, a range of frequencies can be recommended, which gives the ratio of the wall thickness of a pipe ingot to the penetration depth of current into steel (b/Δ) within $b/\Delta = 1 - 2$.

[Abstracter's note: Complete translation]

V. Tarisova

Card 1/1

PHASE I BOOK EXPLOITATION

SOV/6216

Glukhanov, Nikolay Parmenovich, and Valentin Nikolayevich Bogdanov
Svarka metallov pri vysokochastotnom nagreve (High-Frequency Welding of Metals). Moscow, Mashgiz, 1962. 189 p. 7000 copies printed.

Reviewer: A. A. Alekseyev, Professor; Ed.: K. A. Kochergin, Candidate of Technical Sciences; Eds. of Publishing House: R. N. Onishchenko and N. Z. Simonovskiy; Tech. Ed.: M. M. Peterson; Managing Ed. for Literature on the Design and Operation of Machines, Leningrad Department, Mashgiz: F. I. Fetisov, Engineer.

PURPOSE: This book is intended for engineering personnel of machine-building and metallurgical plants, as well as of scientific research and planning institutes.

COVERAGE: The book reviews physical phenomena utilized in heating metal with high-frequency current in the welding process. Conditions for the high-frequency welding of various articles are

Card 1/2

GLUKHANOV, N. P., kand.tekhn.nauk

Electromagnetic processes in a conducting cylinder during induction
heating in a circular inductor with a magnetic circuit. Trudy
NIITVCh no.4:22-35 '63. (MIA 17:7)

GLUKHOV, N. V., VNIITekhnicheskii; GOLDFELD, I. M., Izd.

Shielded synchronous magnetic clutches. Trudy VNIITekhnicheskogo in-ta, no. 4,
114-420-163. (MIRA 1742)

ADLER V. N.; KALINOV, A. V., prof., doctor tekn. nauci;
kotenant; FESL', A. A., zvezd. inzh. inzh. nauci.

"Naučni principy vysokochastotných magnetov. Mimoštandard
střední, 1969. 28 p. (bibliotéka 1969 výročního výběru
terpista nro. 2)"

ACC NR: AP6035534

SOURCE CODE: UR/0292/66/000/010/0036/0038

AUTHOR: Glukhanov, N. P. (Candidate of technical sciences);
Ganzburg, L. B. (Engineer)

ORG: none

TITLE: Shielded clutches

SOURCE: Elektrotehnika, no. 10, 1966, 36-38

TOPIC TAGS: clutch, synchronous clutch, electric clutch

ABSTRACT: A few shielded synchronous clutches developed or tested at VNII TVCh and intended for chemical, nuclear, and other industries are described. The clutches transmit rotation or thrust to the inside of a sealed industrial machine or apparatus. Essentially, they consist of a toothed outside (wound) member, an isolating shield (1Kh18N9T nonmagnetic steel), and a toothed inside

Card 1/2

UDC: 621.825.7.001.3

ACC NR: AP6035534

member. Several versions are briefly described or mentioned: a synchronous clutch for 150-atm pressure difference; a "star"-type-magnet clutch; a "bushing"-type-magnet clutch; a homopolar axial-magnet clutch for 20000 rpm, 30 kg·cm, 1.5 atm; a homopolar end-type axial-magnet clutch for 3000 rpm, 2 atm, 5 kw; a planetary-reducer-type clutch; a thrust-type clutch. "Engineer N. M. Rumyantsev took part in designing the clutches." Orig. art. has: 5 figures.

SUB CODE: 13, 09 / SUBM DATE: none / ORIG REF: 007

Card 2/2

TROYEPOL'SKIY, V.N., inzh.; GLUKHAROV, A.A., inzh.

Welding cast iron in an atmosphere of water vapor. Svar. proizv.
no. 6:16 Je '63. (MIRA 16:12)

1. Proyektno-konstruktorskoye byuro Glavstroymekhanizatsii.

(Engineer, Colonel)

TITLE: Aerostats and airships

SOURCE: Aviatsiya i kosmonavtika, no. 1, 1965, 48-51

TOPIC TAGS: aerostat, airship, dirigible, air navigation

ABSTRACT: The latest developments in the chemistry of polymers, automatic controls, radio electronics, and materials have been applied to the design and construction of lighter-than-air craft in a new perspective. The new aerostats will look like their prototypes; however, their payload will no longer include the ballast which had imposed certain limits to flight duration, altitude, and load-lifting capacity. The future aerostats will use liquid hydrogen, automatic flight controls, and improved envelopes. The envelopes are now being made essentially of durable polyethylene film measuring 30-60 μ in thickness and weighing 28-55 g per square meter. It can be safely predicted that coatings dozens of times as durable and only 5 μ thick

Card 1/3

L 21785-65

ACCESSION NR: AP5002957

will soon be made. A great deal of interest has been aroused by the "helio-arge" project which combines the lift of an aerostat with the thrust of a helicopter. Tests have shown that a helicopter with a lift of 200 kg, when fitted out with a spherical 1000-m³ envelope (lift, 800 kg), can carry one additional ton at a speed of 25 km/hr. (lift, standard fuel. the hydrogen contained in the aerostat's

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descending in the base

Card 2 / 3

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3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

NO REF SOV: 000

OTHER: 000

SUB CODE: AC, SV

AD PRESS: 3169

Card 3/3

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515420002-2"

GLUKHAREV, A. G. (Major of the Medical Service)

"Making up Case Histories with Laboratory Examination Blanks."

Voyenno-Meditsinskiy Zhurnal, No. 6, 1961:

GLUKHAREV, A.G.; TOVSTOLES, K.F.

Methods for obtaining urine from rabbits. Lab. delo [7] no.4:
57-58 Ap '61. (MIRA 14:3)

1. Kafedra urologii (nach. + doktor meditsinskikh nauk G.S. Grebenschchikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(CATHETER)

(URINE)

GLUKHAREV, A.G.

Study of kidney function in rabbits. Lab. delo 7 no.5:17-19 My '61.
(MISA 14:5)

1.Kafedra urologii (nachal'nik - doktor meditsinskikh nauk G.S.
Grebenshchikov) Voyenno-meditsinskoy ordena Lenina akademii S.M.
Kirova.

(KIDNEYS)

GLUKILAREV, A.G., mayor meditsinskoy sluzhby

Forming the history of an illness with blanks from laboratory
investigation. Voen.-med. zhur. no.6:81 Je '61. (MIA 14:8)
(MEDICAL RECORDS)

GLUKHAREV, A.G.; TOVSTOLES, K.F.

Method for intravenous urography in rabbits. Biul.eksp. biol. i
med. 51 no.1:116-118 Ja '61. (MIFI 14:5)

1. Iz kafedroy urologii (nachal'nik - doktor med. nauk G.S.Greben-
shchikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova,
Leningrad. Predstavlena deystvitel'nym chленom AMN SSSR V.V.Parinym.
(KIDNEYS--RADIOGRAPHY)

GLUKHAREV, A.G., kand.med.nauk

Results of treating acute gonorrhea by the use of bicillin-3.
Vest. derm. i ven. 38 no.9:65-67 S '64.

(MIRA 18:4)

I. Urologicheskaya klinika (nachal'nik - prof. G.S.Grebenshchikov)
Vseyenne-meditsinskoy ordona Lenina akademii imeni Kireva.

$$m_1 \in \mathcal{G}(A_1, A_2), \quad \sigma \in \mathcal{S}_1$$

1.00 g of the oil precipitate. This was dried, weighed, and found to contain 1.02 g of Na_2 .

• Kefeldeur leidt (verantwoordelijkheid) tot een meer positieve en gezellige meditatie en ontspanning. Hierin is een grote verschillende te vinden, denk ik.

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Approved for Release

By [redacted] on [redacted] under authority of [redacted] [redacted]
[redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515420002-2"

GUZHAREV, A.G.

Effect of anesthetics on the functional capacities of the anesthetized.
Farm. zhurn. 1981, 69, No. 4, 156.

(MIRA 18 12)

1. Kirovograd Oblast (nurse) N.I. Kuznetsova, prof. G.S. Greenbaum
Vesn. med. Nauk. 1981, No. 1, 100-103.

ACC NR: AP7009097

SOURCE CODE: UR/0413/67/003/003/0070/0070

INVENTOR: Glukharev, A. I.; Foygel', L. A.; Sushinkin, Ye. I.; Gerashchenko, V. A.

ORG: None

TITLE: An oxygen flow indicator. Class 30, No. 191046

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 70

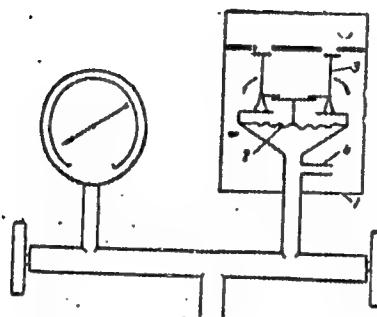
TOPIC TAGS: flow meter, oxygen, medical equipment

ABSTRACT: This Author's Certificate introduces an oxygen flow indicator containing a housing with a diaphragm which interacts with indicator flags. The instrument may be used at relatively high oxygen pressures. The cavities above and below the diaphragm are connected through a hydraulic resistor which may be made in the form of a tube with a small inside diameter.

Card 1/2

UDC: 612.22.02-087

ACC NR: AP7009097



1--housing; 2--diaphragm; 3--flags; 4--hydraulic resistor

SUB CODE: 14,06 SUBM DATE: 15Mar65

Card 2/2

GLUKHAREV, A.I., inzh. (Engel's); FOYDEL', I.A. (Engel's); GEL'MAN,
N.B., inzh. (Engel's)

Calculation of current in an R-L circuit with half-wave
rectification. Elektrichostvo no. 3:59-60 My '60.
(MIRA 13:9)

(Electric current rectifiers)
(Electronic circuits)

Glukharev, A.N.

86-58-3-19/37

AUTHOR: Agamirov, V.L., Engr Lt Col; Glukharev, A.N., Engr Maj;
Antipov, V.P., Engr Capt; Morozov, D.P., Engr Capt

TITLE: Automatic Aerostats (Avtomatushkiye aerostaty)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 3, pp 50-54 (USSR)

ABSTRACT: The article gives a general description of automatic (pilotless) aerostats as well as of their equipment which is used for scientific research of the upper atmosphere. The authors distinguish two types of automatic aerostats: aerostats whose envelope bursts after a given task is accomplished and whose instruments are detached either automatically or by a radio signal from the ground and then descend by parachute; and aerostats whose envelope can be converted automatically into a parachute. According to the authors, extensive use of automatic aerostats for directed long-distance flights was made possible by the successful exploration of jet streams in the atmosphere. One photo, 1 diagram.

AVAILABLE: Library of Congress
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KONYUKHOV, B.V.; GLUKHAREV, D.M.

Study of strain-specific antigens in A and C57BL strains of mice.
Biul.eksp. biol. i med. 51 no.1:97-101 Ja '61. (MIRA 14:5)

1. Iz kabineta nasledstvennosti (zav. - kandidat biologicheskikh
nauk B.V.Konyukhov) Instituta eksperimental'noy biologii (dir. -
prof. I.N.Mayskiy) AN SSSR, Moskva. Predstavlena deystvitel'nym
chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.
(ANTIGENS AND ANTIBODIES)

KONYUKHOV, B.V.; GLUKHAREV, D.M.

Genetic and morphological characteristics of a strain of mice
with microphthalmia (blind mutation). Biul. ekspr. biol. i med.
52 no.12:100-104 D '61. (Mira 14:12)

1. Iz kabineta nasledstvennosti (zav. - kand.biologicheskikh nauk
B.V.Konyukhov) Instituta eksperimental'noy biologii (dir. - prof.
I.N.Mayskiy). Predstavlena deystvitel'nym chленom AMN SSSR N.N.
Zhukovym-Verezhiknikovym.

(MICE AS LABORATORY ANIMALS)
(EYE--DISEASES AND DEFECTS) (HEREDITY)

GLUKHAREV, I.V.

Results of investigation of surrounding air during painting of
facades with perchlorovinyl lacquer PKHV-54. Gig. sanit., Moskva
no.9:50-52 Sent 1951. (GLML 21:2)

1. Author.

TSAGOLOV, N.A., prof., doktor ekon.nauk; BLYUMIN, I.O., prof., doktor ekon.nauk (doktor ekon.nauk); RUMYANTSEV, A.M., prof., doktor ekon.nauk; EGOROVENKO, A.A., doktor ekon.nauk; SHMETTERSON, A.I., prof., doktor ekon.nauk; dotsent, kand.ekon.nauk; SHVEDKOVA, G.M., kand.ekon. LIF, Sh.B., prof., doktor ekon.nauk; SHVEDKOVA, G.M., kand.ekon. nauk; FISHEVSKII, Iu.K., doktor ekon.nauk; SIDOROV, I.F.; KHARIZOV, R.E., kand.ekon.nauk; NIKOLATEV, A.B., kand.ekon. nauk; AVRAMCHUK, P.P., kand.ekon.nauk; AL'TER, L.B., doktor ekon. nauk; BOYARSKII, A.Ia., prof., doktor ekon.nauk; BREGEN', E.Ia., prof., doktor ekon.nauk; ARZUMANYAN, A.A., VOLODIN, V.S., dotsent, kand.ekon.nauk; MIKSLA, L.S., kand.ekon.nauk; BUNKINA, M.K., dotsent, kand.ekon.nauk; TSVREYSKOV, A.V., kand.ekon.nauk; FADEYeva, T.A., kand.ekon.nauk; KOLGANOV, M.V., prof., doktor ekon.nauk; KHROMUSHIN, G.B., kand.ekon.nauk; MOSHEINSKIY, M.G., kand.ekon.nauk; IVANOV, N.N., kand.ekon.nauk; GUTTSAYT, M.G., dotsent, kand.ekon. nauk; ABOULIN, V.Ia., prof., doktor ekon.nauk; KOLLOONTAT, V.M., kand.ekon.nauk; GLUKHAREV, I.I., kand.ekon.nauk; POKROVSKIY, A.I., kand.ekon.nauk; DADASHEV, G.A., dotsent, kand.ekon.nauk; ALESHINA, I.V., kand.ekon.nauk; ZHAMIN, V.A., dotsent, kand.ekon.nauk;

(Continued on next card)

TSAGOLOV, N.A. --(continued) part 1.

KOZLOV, A.P.; TURPEYEV, I.P., kand.istor.nauk.; ALBKSEYEV, A.M.,
dotsent, kand.ekon.nauk.; FILIPPOVA, Iu.M., ditsent, kand.ekon.nauk.
Prinimali uchast'yei VOLKOV, F.K., kand.ekon.nauk.; KHERCMUSHIN,
G.B.; VOZNESENSKII, L.A., nauchnyy sekretar'; SPERANSKAYA, L., red.;
CHEPELEV, C., tekhn.red.

[Criticism of present-day bourgeois, reformist, and revisionist
economic theories] Kritika sotsialisticheskikh i zapatistskikh, reformistskikh
i revisionistskikh ekonomicheskikh teoriy. - 2nd rev. N.A. TSagolova.
Moskva, Izd-vo Sotsial'n. ekonom., 1961, 368 p. (MIRA 13:5)

1. Moscow. Universitet. - 2. - Korrespondent AN SSSR (for Arzumanyan).

Editor: ...

GLUKHAREV, Leonid Ivanovich; OZIRA, V.Yu., red.; YERMAKOV, M.S., tekhn.
red.

[France; some special characteristics of economic development]
Frantsiya; nekotorye cherty ekonomicheskogo razvitiia. Moskva,
Izd-vo Mosk. univ., 1961. 45 p. (MIRA 14,10)
(France—Economic conditions)

BESSONOV, S. A.; VASIL'KOV, N. P., kand. ekon. nauk, VLASOV, V. A., kand. ekon. nauk, GLUKHAREV, L. I. kand. ekon. nauk, DANILEVICH, M. V., doktor ekon. nauk, ZHAMIN, V. A., doktor ekon. nauk, prof.; ZAKRIMOV, M. I., kand. ekon. nauk, KURAKIN, N. A., kand. ekon. nauk, PANOV, V. P., SMIRNOV, G. V., kand. ekon. nauk, dets., TRIFONOV, V. I., kand. ekon. nauk, TYAGAY, Ye. Ya., FAMINSKIY, I. P., KHODOV, L. G., SHMIDT, G. A., kand. ekon. nauk, dets., SHMITOV, N. N., kand. ekon. nauk, dets., MATSUK, R. V., red., GARINA, T. D., tekhn. red.

[The economy of foreign countries, the capitalistic system of the world economy after the Second World War] Ekonomika zarubezhnykh stran, kapitalisticheskaya sistema mirovogo khoziaistva posle Vtoroi Mirovoi voiny. Pod red. V. A. Zhamina. Moskva, Vysshiaia shkola 1962. 632 p. (MIRA 16:1)

(Economic history)

POLYANSKIY, F.Ya., prof., SHEMYAKIN, I.N., prof.; GLUKHAREV, L.I.,
dots.; ROMANCHENKO, L.N., kand. ekon. nauk; KAYYE, V.A.,
kand. ekon. nauk; MOTUS, P.P., kand. ekon. nauk; YUSHEV,
V.A., kand. ekon. nauk; ROMANCHENKO, L.N., kand. ekon. nauk;
AVDAKOVA, Yu.K., kand. ekon. nauk, dots., red.; SPERANSKAYA, L.,
red.; VOSKRESENSKAYA, T., red.; NEZHANOV, V., mladshiy red.;
NOGINA, N., tekhn. red.

[Economic history of capitalist countries]Ekonomicheskaya istoriya kapitalisticheskikh stran, kurs lektsii. Moskva, Sotsksgiz,
1962. 634 p. (MIRA 16:2)

(Economic history)

GIJUAREV, YE. S.

Disposition: "Approved and Considered by the Comptroller." The Comptroller, Comptroller and Director of the Department of Internal Affairs, and Head, Department of Internal Affairs, Moscow, April 30, 1951.

File: "MAY 1951, 1951-05-19"

GLUKHAROV, Ye.G., kandidat tekhnicheskikh nauk.

Determining flexural stresses in layered rubberized conveyor belts.

Stroili dor.mashinostr. 2 no. 9:33-34 Ag '57. (MZhK 10-9)

(Belts and belting) (Strains and stresses)

GLUKHAREV, Ye.G., kand.tekhn.nauk

Designing lock fastenings for gas-turbine blades. Energomashino-
stroenie 4 no.7:23-25 J1 '58. (MIRA 11:10)
(Gas turbines)

GLUKHAREV, Ya.G., kand. tekhn. nauk

Some data on the operation of gear transmission in British ships.
Sudostroenie 24 no. 6:67-68 Je '58. (MIRA 11:8)
(Great Britain--Marine engineering)

26.2120

S/111/60/000/011/005/0..
E194/E484AUTHOR: Glukharev Ye.G., Candidate of Technical SciencesTITLE: The Flexibility and Shape of the Teeth of Fir-Tree
Roots of Turbine BladesPERIODICAL: Energomashinostroyeniye, 1960, No. 11, pp 11-15

TEXT: On the basis of a previous article by Grubin, A.N. (Trudy Kuybyshev Industrial Inst 1957 Vol.7) and one by the present author (Energomashinostroyeniye, 1958, No.7) it is stated that the load distribution between the teeth of the fir-tree root of a turbine blade depends very much on their flexibility, the load being the more uniform the more flexible they are. Fig.1 gives curves of the load distribution along the depth of the blade root as function of the flexibility of the teeth K. Fig.1a does not allow for temperature strain; Fig.1b does. In the previous article the deflection was determined as the sum of deflections obtained by integrating the differential equation of deflection of an overhung beam with appropriate loading. This method requires improvement both in respect of discovering the actual stress condition of the teeth and in applying more accurate methods of determining strain. Tangential stresses play the most important

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E194/E484

The Flexibility and Shape of the Teeth of Fir Tree Roots of Turbine
Blades

part in tooth deflection and, accordingly, it is natural to determine them more accurately than is possible by application of the elementary methods of strength of materials and in particular to satisfy the boundary conditions. For teeth of the widely used anvil shape, illustrated in Fig. 2, the boundary conditions are then stated and it is shown that the principal stresses operating in the tooth are the normal and the tangential stresses. Eq. (4) and (5) are derived for the normal stresses and Eq. (6) and (7) for the tangential. Castigliano's method is then used to determine the deflection of the teeth, see Eq. (8). It is recommended to use methods of numerical integration to determine the deflection. The approximate Eq. (10) may be used for the tooth flexibility; it is based on an approximate method of determining the deflection due to tangential stresses alone which are considered to be distributed over the tooth section according to the usual parabolic law. The relative flexibility of teeth of different shapes, particularly anvil shape and trapezoidal, is then considered see Fig. 3. The comparison is only possible provided that allowance is made for the boundary conditions in determining the law of tangential stress.

Card 2/3

S/11 -/00/000/01./003/0...
E194/E484

The Flexibility and Shape of the Teeth of Fir-Tree Gear-Blades

distribution. Eqs.(13) and (14) are derived for the tangential stresses in the two cases and stress distribution diagrams are plotted in Fig.3. On the basis of the tangential stresses alone the trapezoidal tooth is 11% more flexible than the anvil shape, but if normal stresses are also allowed for the trapezoidal tooth is 9.5% more flexible. Thus from the standpoint of external load distribution in the elastic condition of operation of the blade root, the trapezoidal tooth shape is to be preferred. There are 3 figures and 3 Soviet references.

VK

Card 3/3

GLUKHAEV, Ye.G., kand. tekhn. nauk

Efficient selection of the number of conveyor belt plies
and the importance of conveyor drum diameters. Stroi. i
dor. mash. 9 no.6;21-22 Je '62. (MIA 18:11)

GLUKHAR'VA, A. P.

Works of the Central Peat Experimental Station. (Min of Agrl, P.R.S.F.S.R.)

Volume 9, 1939, 91 pages.

"The Drying Collection and Storage of Peat Stale Litter." by
F. Usenko, A. P. Glukhar'va, A. M. Mitorichenko.

SO: Botanicheskiy Zhurnal, Vol XXXIV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimonthly, Moscow/Leningrad (U-1511,
12 Feb 1954)

55500

27836
S/032/61/027/010/012/022
B104/B102

AUTHORS: Rychkov, R. S., and Glukhareva, N. A.

TITLE: Application of the radioactivation analysis to the determination of microimpurities in semiconductor materials

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 10, 1961, 1246 - 1250

TEXT: I. D. Berkutova, A. K. Gofman, N. A. Glukhareva, G. A. Kuznetsova, R. S. Rychkov, and N. B. Smirnova have worked out a method for the activation analysis of Ge, Si, SiO_2 , SiC, $SiCl_4$, Al, C, and GaAs to determine the content of Au, Cu, Sb, Zn, and other impurities. Such microimpurities were successfully excited in a reactor and could thus be exactly identified from their γ -spectrum. The measurements were made with a multi-channel scintillation spectrometer whose NaI(Tl) crystal had a size of 40·40 mm. $\Phi\mathcal{E}Y-29$ (FEU-29) and $\Phi\mathcal{E}Y-15$ (FEU-1B) photomultipliers as well as 50-AM-1(50-AI-1) and AM-100(AI-100) analyzers were used in the electronic device. The specimens were carefully purified from surface contaminations and subsequently irradiated in quartz or polyethylene ampoules together with standards. After the irradiation the specimens were carefully

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B104/B102

Application of the radioactivation...

purified once more. Na, Ta, Cr, Fe, Zn, Sb, Co, and Sc were determined directly from the γ -spectrum, if the specimens to be examined contained only insignificant amounts of impurities, and if one and the same specimen did not contain several impurities at the same time. Otherwise the specimens were decomposed by various chemical methods, and the interfering elements were removed. The microimpurities in the preparations thus obtained were determined from their γ -spectra which were compared with those of the standards. Practical tests have proved the method described here to be useful, both in technical and economic respect. Finally, security measures to be followed in the irradiation of specimens and standards in a reactor are briefly discussed. There are 1 table and 13 references: 3 Soviet and 10 non-Soviet. The three most recent references to English-language publications read as follows: G. H. Morrison. Anal. Chem., v. 26, no. 3 (1956). G. H. Morrison. Anal. Chem., v. 27, no. 5 (1955); A. A. Smales, Mapper. Atomic energy research establishment (1957). X

Card 2/2

Glukhareva, N.G.
USSR/Electronics - Electronic and Ionic Emission

H-2

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12281
Author : Mendelev, B.G., Bebchuk, A.S., Glukhareva, N.G.
Inst : -
Title : Application of Sonic and Ultrasonic Vibrations in Technology of Manufacture of Cathodes and Heaters (Preliminary Information).
Orig Pub : Tr. N.-i. in-ta. M-vo radiotekhn. prom-sti SSSR, 1956, vyp 2-3 (30-31), 71-73

Abstract : It is reported that sonic and ultrasonic oscillations (in most cases 10 kc) have been used to obtain alundum and carbonate suspensions, for the purification of parts of electro-vacuum tubes, and in particular, for the purification of the internal surface of cathode tubes. The vibrations are produced with the aid of a magnetostriction setup with a nickel vibrator. Good results are obtained in the purification of cathode tubes. After 5 -- 7 minutes

Card 1/2

DOCUMENT 17 LIA Sec 6 Vol 13/2 Surgery Cont. 49

4768. (1158) STREPTOMYCIN IN THE COMPLEX TREATMENT OF TUBERCULOUS COXITIS (Russian text) - Glukhareva Z. P. VESTN.KHIR. 1959, 82/3 (28-33) Illus. 4

Different evolutive stages of tuberculous coxitis treated by streptomycin were assessed studying the case histories of 420 patients. At the onset of the disease when para-articular tuberculous foci are present without involving the joint itself, streptomycin therapy proved to be of great value, a total healing of the former and not only the remission of the process having been achieved by this policy. At the height of tuberculous activity streptomycin brings about improvement but fails to lead to recovery. In such cases the most rational therapy is the association of streptomycin administration with a radical surgical treatment. The same is true for the majority of coxitis cases with fistulae formation where only such a complex treatment has resulted in recovery. In surgical interventions of various kinds adjuvant streptomycin therapy yields a smooth postoperative course and prevents the dissemination of the process. (IX, 15, 19*)

L 23020-66 EWT(m)/EWP(t)/EWP(k) IJP(c) JD/HW
ACC NR: AF6007658

SOURCE CODE: UR/0413/66/000/003/0016/0016

AUTHOR: Polyak, S. M.; Perper, F. A.; Glukhatkina, Ye. A.; Bakulin, V. I.

ORG: none

TITLE: Device for forming without the use of presses. Class 7,
No. 178348

18

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3,
1966, 16

TOPIC TAGS: die, metal forming

ABSTRACT: An Author Certificate has been issued for a device for forming without the use of presses; it consists of a concrete female die, which is enclosed in a metal housing duct for evacuating air from the working cavity, and drawing and holdown rings. In order to increase the durability of female dies for multiple dynamic loading, the upper base of the die and the drawing ring have an intermediate layer of rubber with 1-mm holes situated to fit the air ducts in the die; on evacuation the rubber adheres tightly to the female die (see Fig. 1). Orig. art. has: 1 figure. [LD]

Card 1/2

UDC: 621.7.04b.2

L 23020-66

ACC NR: AP6007658

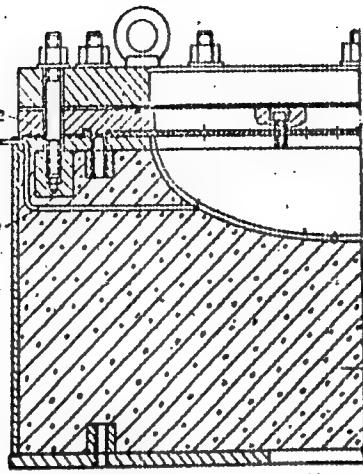


Fig. 1. Device for forming without a press. 1 - female die;
2 - drawing ring; 3 - rubber layer; 4 - ducts

SUB CODE: 11, 13/ SUBM DATE: 26Mar64/

Card 2/2 *pls*

GLUKHEN'KIY, B. T.

GLUKHEN'KIY, B. T. --"Clinical Significance of Protein Precipitation Test in the Treatment of Syphilis Patients," (Dissertations for Degrees in Science and Engineering Defended at USSR, Higher Educational Institutions). L'vov State Med Inst, L'vov, 1955

SO: Knizhnaya Letopis' No. 34, 20 August 1955

* For the Bureau of Medical Intelligence

POBEGAYLO, V.M., mladshiy nauchnyy sotrudnik; GLUKHEN'KIY, B.T., mladshiy nauchnyy sotrudnik; VISHNEV'KIN, M.S., ordinator

Treatment of gonorrhreal urethritis with levomycetin. Vest. ven. i
derm. no.3:58 My-Je '56. (MLRA 9:9)

1. Iz L'vovskogo kozhno-venerologicheskogo instituta.
(GONORRHEA) (CHLOROMYCETIN)

POBEGAYLO, V.M., mladshiy nauchnyy sotrudnik; GLUKHEN'KII, V.T., mladshiy nauchnyy sotrudnik; KUNTS, S.A., ordinatör

Chloromycetin emulsion for treating streptoderma. Vest.ven. i derm.
30 no.4:52 Jl-Ag '56. (MLRA 9:10)

1. Iz L'vovskogo kozhno-venerologicheskogo instituta.
(CHLOROMYCETIN) (SKIN--DISEASES)

GLUEHEN'KIY, T.T., dots., GLUEHEN'KIY, B.T., MAKOTRENKO, A.X.

Measures for reducing pustular and occupational diseases of the skin.
(MIRA 11:9)
Vrach.delo no.7:725

1. Nesterovskiy rayonnyy kozhno-venerologicznyi dispensar
(konsul'tant-dots. T.T.Glukhen'kiy) L'vovskoy oblasti.
(SKIN--DISEASES)